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UNIVERSITY OF MICHIGAN.

THE
PRESIDENT'S REPORT

TO THE
BOARD OF REGENTS

FOR THE
YEAR ENDING SEPT. 30

1892.

ANN ARBOR, MICH.:
PUBLISHED BY THE UNIVERSITY
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THE COURIER PRINTING HOUSE,
ANN ARBOR, MICH.

THE PRESIDENT'S REPORT.

To the Honorable Board of Regents.

I beg leave to present my Annual Report for the year ending September 30, 1892.

It is with great sorrow that I have to record first among the important events in the history of the University for the year the death of Regent Charles Stuart Draper. After a grave illness of some months he went, under medical advice, to the Springs of Carlsbad in Austria. But, it becoming apparent that his disease was incurable, he started for home, and died on August 5th at sea. His remains were brought to his old home, at Pontiac, for burial.

Mr. Draper graduated A. B. from our Literary Department in 1863. He chose the law as his profession, and as a practitioner, both at Pontiac and at East Saginaw, made a brilliant reputation. He also rendered useful and gallant service in the civil war.

He was appointed Regent in 1887, by Gov. Alger, to fill the vacancy caused by the death of Regent Moses W. Field. At the expiration of his term in 1889, he was elected by the people for the term ending Jan. 1, 1897. How faithfully and how efficiently he devoted himself to his official duties upon this Board, I need not say to you, his colleagues and friends. Under the heavy pressure of a large practice in an absorbing profession, he found time to answer the frequent calls which the University made upon him as a member of the Board and Chairman of a most important Committee. His familiarity with the inner life of the University, his large acquaintance with

men and affairs, his acute perceptions, his courage, his sound judgment, gave great weight both in this Board and throughout the State to his opinions upon our business. I am sure we all leaned upon him as a most judicious counsellor. We shall greatly miss him from our deliberations.

It is interesting to note that his father, Hon. William Draper, still living at Pontiac, was also a Regent from 1840 to 1844. There is in our brief history no other case in which both father and son have served upon this Board.

At the meeting of the Board of Regents in October, 1891, the following appointments for one year were made:

Lewis Murbach, B. S., Instructor in Morphology.

George Rebec, Ph. B., Instructor in English.

Simon M. Yutzy, M. D., Instructor in Osteology, Assistant Demonstrator of Anatomy, and Assistant to the Professor of Anatomy.

D. M. Lichty, M. S., Instructor in General Chemistry, in place of C. K. McGee, resigned.

Ernst Voss, Instructor in German.

Also the following appointments of Special Lecturers in the Law Department, for one year, were made:

Judge Samuel Maxwell, Code Pleading and Practice.

Melville M. Bigelow, LL. D., Insurance.

J. B. Clayberg, LL. B., Mining Law.

George H. Lothrop, B. S., Patent Law.

Wm. G. Hammond, LL. D., History of Common Law.

The title of Professor Freer was changed to Professor of General Chemistry and Director of the Laboratory of General Chemistry.

Assistant Professor Andrew C. McLaughlin, A. B., was appointed Professor of American History, with the understanding that, in addition to the discharge of his former duties in the Literary Department, he should also give instruction in Constitutional Law to the graduate class in the Law Department.

At the November meeting of the Board the following action was taken:

The appointment by the Executive Committee of Herman V. Ames, Ph. D., as Instructor in History for one year, in the place of J. H. T. McPherson, Ph. D., resigned, was confirmed.

Professor M. L. D'Ooge was appointed Dean of the Literary Faculty for one year.

Assistant Professor J. B. Davis was made Professor of Geodesy and Surveying.

At the meeting in January, 1892, the resignation of the Professor of Astronomy and Director of the Observatory, Mark W. Harrington, A. M., was accepted.

At the May meeting the following appointments were made:

Dr. G. C. Huber was appointed Assistant Professor of Histology for three years.

John C. Rolfe, Ph. D., Acting Professor of Latin for one year, having charge of the Latin Department during the absence of Professor Kelsey, in Europe.

David E. Spencer, A. M., Acting Assistant Professor of History for one year, during the absence of Professor Hudson, in Europe.

Fred M. Taylor, Ph. D., Assistant Professor of Political Economy, for three years.

Nathan Abbott, A. B., Tappan Professor of Law (permanent appointment).

George Herbert Rowe, B. S., Instructor in Electrical Engineering, for one year.

John O. Reed, Ph. M., Instructor in Physics, for one year.

Asaph Hall, Jr., Ph. D., Professor of Astronomy and Director of the Observatory.

Israel C. Russell, M. S., C. E., Professor of Geology.

Benjamin P. Bourland, A. M., and John R. Effinger, Ph. B., Instructors in French, for one year.

At the meeting in June, George Dock, M. D., received the permanent appointment to the Chair of the Theory and Practice of Medicine and Clinical Medicine, which he filled last year.

The following appointments were made for three years.

A. B. Stevens, Ph. C., hitherto Lecturer on Pharmacy, Assistant Professor of Pharmacy.

Frank C. Wagner, A. M., Assistant Professor of Mechanical Engineering.

The following appointments were made for one year :

W. P. Lombard, A. M., M. D., Professor of Physiology and Histology, in the place of Dr. W. H. Howell, resigned.

Geo. H. Mead, A. B., Instructor in Philosophy.

A. H. Lloyd, A. M., “ “ “

R. L. Weeks, A. M., “ “ French.

J. A. C. Hildner, A. B., “ “ German.

Ernst Voss, “ “ “

H. V. Ames, Ph. D., “ “ History.

Geo. Rebec, Ph. B., “ “ English.

David M. Lichty, M. S., “ “ General Chemistry.

W. F. Edwards, B. S., Accountant and Dispensing Clerk.

Julius O. Schlotterbeck, Instructor in Pharmacognosy.

L. N. Johnson, A. M., “ “ Botany.

H. A. Sober, A. B., “ “ Latin.

H. F. DeCou, A. M., “ “ Greek and Sanskrit.

W. K. Clement, Ph. D., “ “ Latin.

Elmer L. Allor, B. S., “ “ Astronomy.

J. L. Markley, Ph. D., “ “ Mathematics.

E. A. Lyman, A. B., “ “ “

Arthur G. Hall, B. S., “ “ “

Moritz Levi, A. B., “ “ French.

Fred Morley, C. E., “ “ Descriptive Geometry and Drawing.

B. J. Vos, Ph. D., “ “ German.

Geo. O. Higley, B. S., “ “ General Chemistry.

Moses Gomberg, M. S., Assistant in Organic Chemistry.

Chas. H. Cooley, A. B., “ “ Political Economy.

Frank H. Dixon, Ph. B., “ “ “ “

The following appointments in the Law Department were made for one year :

Elias F. Johnson, LL. B., Instructor in Law.

Thomas M. Cooley, LL. D., Lecturer on Inter-State Commerce.

Henry B. Brown, LL. D., Lecturer on Admiralty.

Marshall D. Ewell, LL. D., Lecturer on Medical Jurisprudence.

James L. High, LL. D., Lecturer on Injunctions and Receivers.

John B. Clayberg, LL. B., Lecturer on Mining Law.

George H. Lothrop, Ph. B., Lecturer on Patent Law.

Melville M. Bigelow, Ph. D., Lecturer on Insurance.

Andrew C. McLaughlin, A. B., LL. B., Lecturer on Constitutional Law and Constitutional History.

Victor C. Vaughan, Ph. D., M. D., Lecturer on Toxicology and its Legal Relations.

Henry C. Adams, Ph. D., Lecturer on the Railroad Problem.

At the meeting in September the following appointments were made:

Henry B. Ward, Ph. D., Instructor in Morphology.

W. A. Kickland, B. S., Assistant in Vertebrate Morphology.

Ernst H. Mensel, A. M., Instructor in German.

Lawrence McLouth, A. B. Instructor in German.

During the year, degrees were conferred as follows:

DEGREES ON EXAMINATION.

Bachelor of Letters-----	26
Bachelor of Science (in Biology)-----	6
Bachelor of Science (in Chemistry) -----	6
Bachelor of Science (in Electrical Engineering) -----	5
Bachelor of Science (in Mining Engineering)-----	2
Bachelor of Science (in Mechanical Engineering)-----	5
Bachelor of Science (in Civil Engineering)-----	9
Bachelor of Science -----	12
Bachelor of Philosophy -----	35
Bachelor of Arts -----	66
Master of Science -----	4
Master of Philosophy -----	2
Master of Arts -----	5
Doctor of Philosophy-----	7
Doctor of Medicine (Dept. of Medicine and Surgery)-----	112
Bachelor of Laws -----	291
Master of Laws -----	20
Pharmaceutical Chemist -----	29
Master of Pharmacy -----	1
Doctor of Medicine (Homœopathic Medical College)-----	17
Doctor of Dental Surgery-----	39
	699

HONORARY DEGREES.

Doctor of Philosophy-----	2
Total number of degrees conferred-----	701

The number of graduates on examination is greater than that of the preceding year by 76, and is greater than the number ever before bestowed by an American University.

The attendance has been as follows :

SUMMARY OF STUDENTS.

DEPARTMENT OF LITERATURE, SCIENCE, AND THE ARTS.

Holder of the Elisha Jones Classical Fellowship-----	1
Resident Graduates -----	49
Candidates for an Advanced Degree, Enrolled in Other Departments -----	6
Graduates Studying <i>in Absentia</i> -----	37
Undergraduates :	
Candidates for a Degree -----	1022
Students not Candidates for a Degree-----	215—1330

DEPARTMENT OF MEDICINE AND SURGERY.

Resident Graduates-----	4
Fourth Year Students -----	123
Third Year Students-----	43
Second Year Students-----	93
First Year Students-----	106
Special Student -----	1— 370

DEPARTMENT OF LAW.

Resident Graduates -----	22
Seniors -----	290
Juniors -----	324
Special Students -----	15
Students enrolled in Department of Literature, Science, and the Arts-----	7— 658

SCHOOL OF PHARMACY.

Resident Graduate-----	1
Second Year Students-----	35
First Year Students -----	45— 81

HOMŒOPATHIC MEDICAL COLLEGE.

Resident Graduate-----	1
Fourth Year Students -----	18
Third Year Students-----	28

Second Year Students-----	17	
First Year Students-----	15—	79

COLLEGE OF DENTAL SURGERY.

Resident Graduates-----	4	
Seniors-----	36	
Juniors-----	63	
Freshmen-----	85—	188
	2706	
Deduct for names counted more than once-----	14	
Total-----	2692	

This number is larger by 272 than that of the preceding year. Our attendance, as in that year, was larger than that at any other American University. Since the year 1884-5, the number of students has more than doubled. During the last four years the annual increase has been between 200 and 300, as the following table shows:

	Total Attendance.	Annual Gain.
In 1887-8-----	1667-----	
In 1888-9-----	1885-----	218
In 1889-90-----	2159-----	274
In 1890-1-----	2420-----	261
In 1891-2-----	2692-----	272

The attendance by Departments is shown in the following table:

ATTENDANCE BY DEPARTMENTS.

	1890-1	1891-2
Literary Department-----	1170	1330
Department of Medicine and Surgery-----	375	370
Department of Law-----	581	658
School of Pharmacy-----	91	81
Homœopathic Medical College-----	71	79
Dental College-----	132	188

The largest absolute increase was in the Literary Department, 160. The Law Department gained 77, and the Dental College 56.

The increase in the Literary Department in the last two years has been nearly 32 per cent.; in the Law Department, more than 23 per cent.; and in the Dental De-

partment, more than 82 per cent. The attendance in the other Departments has been very steady for the last few years.

It is interesting to notice that, in the rapid growth of the University, the students from Michigan continue to number about one half of all. Of the total number last year, 2692, Michigan furnished 1322, or a little over 49 per cent. In the previous year, she furnished 48 per cent. Her representation in each Department is as follows: Literary, nearly 59 per cent.; Medical, nearly 50 per cent.; Law, 28 per cent.; Pharmacy, nearly 36 per cent.; Homœopathic College, 44 per cent.; Dental College, 56 per cent.

Our students were drawn last year from forty-six of our states and territories. Every state in the Union but two was represented. So were the following foreign states and provinces: Japan, Hawaiian Islands, Sweden, Syria, South Africa, Italy, Bulgaria, Costa Rica, Bermuda, England, Ireland, New Brunswick, Quebec, Ontario, and Manitoba. Nothing could better testify to the wide repute of the University than its power to attract students year after year from all parts of this country and from so many foreign lands.

The attendance of women for the last two years has been as follows:

ATTENDANCE OF WOMEN.		1890-1	1891-2
Literary Department	-----	356	437
Medical Department	-----	60	59
Law Department	-----	2	3
School of Pharmacy	-----	4	4
Homœopathic Medical College	-----	17	20
Dental College	-----	6	8
		445	531

It will be observed that the attendance of women in the Professional Schools changes very little from year to year. Of the total attendance in the Medical Department it amounts to 16 per cent.; in the Homœopathic

Department, 25 per cent.; in the Literary Department, nearly 33 per cent. The total increase has been 19 per cent.

Public sentiment in favor of opening universities to women as well as to men is rapidly strengthening both in this country and in Europe. The Scotch universities are now receiving women to their classes.

We were compelled last year to undertake the enlargement of some of our buildings, in order to furnish suitable accommodations for our overflowing classes. The Law Building has been nearly doubled in size. Space has thus been gained for the enlargement of the library room and for the addition of quiz rooms and lecture rooms. The building formerly used by the Dental College has received a large addition and has been adapted to the uses of the Engineering classes. The University Hospital was completed early in the year, and has been occupied since December. The new Homœopathic Hospital has also just been completed, and is now occupied. The President's House, which was built fifty-one years ago, has been renovated and enlarged. The fine cement walk which had been begun has been carried entirely around the campus. Though we have not received subscriptions enough to complete the gymnasium, the contract for erecting the outer walls and covering the building was made in the spring, and the work is going forward rapidly. A good deal of work has been done in constructing new cases and rearranging old ones in the Museum. These improvements have entailed heavy expenses, but they seemed necessary. The need of others, as will be shown hereafter, is now just as pressing.

A considerable sum has been devoted to preparing the Athletic Field for use. The University Athletic Association, which any student is at liberty to join on the payment of a moderate fee, is entrusted, under the direction of an Advisory Committee composed of members of the different Faculties, with the care of the Field, and under

takes to keep it in good order. The Association is allowed to receive the gate fees charged for admission to match games. This arrangement practically levies a small tax on the students who are interested in athletics for the care of the Field. It seems proper that after the University has borne the expenses of purchasing and preparing the Field the students should be charged with the expense of keeping it in repair. The plan adopted appears to be working well. The advantages of the Field are warmly appreciated by the students.

So much public interest was evinced in what is called the work of University Extension that early in the college year the Literary Faculty matured a plan for entering upon it, and the plan received your approval. It contemplated the offering of courses of lectures by members of the Faculty at a moderate rate to local organizations in towns and cities not too remote from us. Several of our professors offered their services at considerable inconvenience to themselves. Courses consisting of six lectures each were given at Detroit, East Saginaw, Grand Rapids, Kalamazoo, Hillsdale and Toledo. Professor Demmon lectured on English Literature, Professor Adams on Political Economy, Professor Carhart on Electricity, Professor Hudson on the German Empire, Professor Steere on Zoölogy, and Professor Scott on Art. Quizzes and examinations were held on the subjects of the lectures. The experiment showed that there is at present a certain demand for such instruction, and the examination papers indicated, in the opinion of the lecturers, that a considerable number of the hearers were much profited by it. It is, perhaps, too early to say whether the interest in such lectures, which are given primarily for instruction rather than entertainment, is to be abiding. It is clear that the lecturers find the task, taken in addition to their regular duties, rather a heavy draught on their strength. It is also impossible for them to discharge this duty without some absence from their classes here. On the other hand, it is

not without public advantage to the University that our professors thus show their intelligence and their ability to aid in the intellectual development of the many, who with a thirst for learning, are unable to repair to our halls for study. It probably strengthens the institution in the public esteem, and demonstrates to many, who would otherwise know little of our work, the value of the instruction given here. Therefore it seems worth while, even at the cost of a little inconvenience, to repeat the experiment of last winter. Should, however, the demand for University Extension teaching become as general as some anticipate it will, it would be beyond our power to meet it, unless provision should be made for special lecturers who could give a large part of their time to the work. We can safely postpone for the present the consideration of that subject. It is, however, desirable to call attention to the fact that there is a limit to the amount of this outside work which a College Faculty can do without injustice to the regular college classes. The public should understand this, if we fail to respond to all the calls they may make upon us for courses of lectures.

The Faculty of the Literary Department have given prolonged consideration during the year to the best practicable method of effecting a better organization of our work for graduate students. They have a strong conviction of the importance of giving more emphasis to it than we have given heretofore. Without any special effort on our part to build up a graduate school, we had last year nearly a hundred graduate students under our care. Twenty-eight of these took their bachelor's degrees at other institutions. The attention of our professors has been so largely concentrated on the instruction of undergraduates, that full justice has perhaps not been done in all cases to the claims of these advanced students. The Faculty feel, and with reason, that we ought to improve every opportunity to do well that advanced literary and scientific teaching which may be regarded as the university work.

While we cannot neglect, much less omit the undergraduate work, we should be glad to encourage and to invite graduates to take up the higher ranges of study with us, and should strive to furnish them as good facilities for such study as are afforded anywhere in the country. The demand for such facilities is rapidly increasing. The stronger universities are very properly striving to meet it. If we are not to fall behind them, we must also do our utmost to promote this advanced instruction. The importance of such instruction to American scholarship can hardly be overrated. It is absolutely essential to the training of teachers for our colleges and our other institutions of higher learning. Hitherto the aspiring students have been under the necessity of resorting to European universities in order to carry their studies much beyond the limits of undergraduate work. While there will continue to be advantages to them in pursuing studies abroad at some time in their career, there is no reason why a large proportion of them may not be so trained at home as to fit them to do advanced work in letters, in science, or in any of the professions. There is abundant evidence to show that, if the proper opportunities are given by us, many of our own graduates will remain with us for some years, and many of the graduates of other colleges, especially of those in the west, will be drawn hither. No more fruitful work can be done by the University than the education of these earnest students, who will go from our halls to occupy positions of marked influence and usefulness. It is, in fact, the genuine university work which we have for many years been desirous of doing. Dr. Tappan, with his broad vision and his true conception of the function of a university, attempted in his day to prepare the way for it. And the Faculty have never lost sight of the ideal which he pictured. It has been only lack of means, which has prevented us from giving larger and more rapid development to our graduate work. We have gone on, much as nearly all the stronger institutions have done,

giving such attention as we could to the graduates after the undergraduates had been cared for.

But the Faculty are of the opinion that whether we regard the increasing urgency of the demand upon us for more thorough and systematic instruction of graduates, or the efforts which the better equipped universities are making to provide for it, it is in the highest degree desirable for us to give it more prominence than we have given it thus far. By their own action they have endeavored to secure the best organization of the work that we can have with our present means, and have given to the organization the name of Graduate School. They would not, however, withhold from you or from the State their opinion that the proper expansion and development of the Graduate School will call for an increase of our teaching force, of our means of illustration, and especially of books. If the proper amount of work is to be bestowed upon the graduate students by our professors, some of them will be unable to give as much time as they now do to the instruction of undergraduates. Assistants must be furnished, maps, charts, photographs, apparatus for research must be provided. A liberal supply of books of a class not required for the general purposes of the library must be had. In short, a considerable addition to our present expenses is involved. This is stated frankly so that there may be no misunderstanding on the part of the Regents or of the public. The question is whether either the State or private benefactors are willing, for the sake of the great gain to the University and to the public, to furnish us the needed help. We have reached so critical a point in our history, it is so obvious that we must now either accept a position in the rear of the larger universities with which we have long been keeping pace in the highest university work, or else make a vigorous forward movement, we are so clearly called by our great opportunity to take a long step in advance, that we are hopeful of securing needed help through the pride of Michigan in the University and

her desire to furnish her sons and daughters with as large advantages as are afforded anywhere in the country. The subject is most earnestly commended to you, and through you, to the people of Michigan for careful and sympathetic consideration.

The increase in the number of students in the Literary Department has made necessary some addition to our force of Instructors. We have also added an Assistant Professor to the force of teachers in Political Economy and Finance, with the distinct purpose of broadening and enlarging the instruction in these subjects. There is a rational public demand for an ample treatment of economic science. The announcement of the number and variety of courses offered by us shows that we are well prepared to meet that demand.

We have also enriched the work in Philosophy by providing courses in Physiological Psychology, a branch in which so important work has of late years been done in Germany and in France.

The call for instruction in the Oriental Languages is so considerable as to justify the enlargement of the work in it. Courses are offered for the coming year, not only in Sanskrit and in Hebrew, but in Assyrian, in Arabic, and in Comparative Semitic Philology. The new interest in the study of the Old Testament, which has been awakened through the country, is shared by our students, and demands instruction in these branches.

The adoption last year by the Department of Medicine and Surgery of a course of four years' study of medicine for its candidates for graduation did not occasion, as might have been anticipated, an important reduction in the number of its students. The total number in attendance was only five less than in the preceding year. That is a gratifying proof of a strong desire on the part of the medical profession for a thorough course of training. The fact that our Medical Department, first of all the American Medical Colleges, decided to take this important step

in lengthening to four years the term of medical education, has attracted much attention, and has lately been commented on with praise by that eminent medical journal, the London Lancet. This year goes into effect the rule, requiring for admission to the Department a preparatory training equal to that for admission to the scientific course in most of our colleges. We await with interest the effect of the enforcement of this rule. We may expect that it will for a time reduce the number of admissions. But it will certainly give us a class better fitted to profit by the course. A proper medical education now calls for the mastery of several sciences. A preparatory discipline, especially in the elements of some of the sciences, is a prerequisite to rapid and large progress in medical studies as they are now taught here. The results of the prolonged and thorough training here have been very satisfactory in comparison with those of the other stronger schools in the country.* But we hope to do yet better work in the future than we have done in the past.

The new Hospital has been of great service. It has been crowded with patients from the day of its opening. Another ward, which will accommodate as many patients as this, is urgently needed and would be promptly filled. The problem of supplying this need is one which will engage your attention.

The Law School continues to be favored with a prosperity which last year was almost embarrassing. The number of students far exceed that of any other law school in the country. It seems to be practically settled that the great majority of students of law must receive

* The following tables are taken from a paper by Perry H. Millard, M. D., of the Minnesota Examining Board, read before the American Academy of Medicine, June 1892. They show the results of examination in the various states in which diplomas are not recognized and where all who wish to practice must pass an examination. Table 1 gives the results of the examination of the graduates of certain three years' schools, and table 2 shows the same for certain two years' schools:

their professional instruction wholly or in a large part in law schools rather than in offices. The practitioners, absorbed in their profession, can no longer give much time to the education of young men in their offices. Hence, although law schools are multiplying, the demand upon us for instruction is constantly increasing. The new addition to our law building will enable us to furnish much better accommodations to our large claims.

An additional requirement, of parts of Blackstone's Commentaries for admission, was made last year. I am of the opinion that still larger requirements might well be made for entrance. Though they should be different from those of the Medical Department, they might still represent an equal amount of school training and discipline.

The third year's class continues to grow. Though the instruction of the class was better provided for this year than the year before, it should be made more systematic still, and the demands upon the class should then be made more rigorous. If the demand for this graduate work in the law school continues to increase, and it is

TABLE 1.

States.	Mich. Univ.		Pa Univ.		Minn. Univ.		Harvard.		Chicago Med. Col.		College P. & S., N. Y.	
	Passed.	Reject'd.	P.	R.	P.	R.	P.	R.	P.	R.	P.	R.
Alabama	2	0	10	0	0	0	3	0	0	0	6	0
Minnesota	37	0	18	0	53	3	7	0	15	0	8	0
North Carolina ..	1	0	3	0	0	0	0	0	0	0	4	0
North Dakota.....	0	0	0	0	0	0	0	0	0	0	0	0
Virginia	2	0	4	0	0	0	0	0	0	0	6	1
Totals.....	42	0	35	0	53	3	10	0	15	0	24	1

Total number of persons examined	183
" " " " passed	179
" " " " rejected	4
Total percentage of persons passed	97.8

deemed wise to encourage it, it will be necessary to make larger provisions for meeting it. The law school brings so large a revenue to our treasury that, on pecuniary grounds—to say nothing of higher grounds—we should give it liberal treatment.

The Homœopathic Medical College continues to hold about the same number of students from year to year. The Hospital, which has been erected for it, is now occupied. The course of study has, like that in the Department of Medicine and Surgery, been lengthened, and the requirements for admission have been raised.

The School of Pharmacy, never ambitious of numbers, retains its place of eminence among schools of its kind.

The Dental College finds itself admirably accommodated in its new quarters. It has been able to take care, with ease, of its largely increased number of students. It has also raised its requirements for admission substantially to those asked for admission to the scientific courses in colleges. I think no other dental school has

TABLE 2.

States.	Univ. of N.Y.		Jeffer- son.		Rush.		Belle- vue.		P. & S. of Balti- more.		Univ. of Louis- ville.	
	P.	R.	P.	R.	P.	R.	P.	R.	P.	R.	P.	R.
Alabama	13	0	15	3	3	1	12	0	12	1	14	4
Minnesota	2	1	5	2	12	9	4	3	0	0	0	0
North Carolina	34	0	39	2	0	0	17	3	69	25	3	4
North Dakota	0	1	1	0	0	0	0	0	0	0	0	0
Virginia	14	6	20	8	0	0	11	0	42	15	2	3
Totals	63	8	80	15	15	10	44	6	123	41	19	11
Total number of persons examined												435
“ “ “ “ passed												344
“ “ “ “ rejected												91
Percentage passed												79

done this. The three years' course following such preparation must give our dental graduates an amount and kind of training furnished nowhere else in the country.

The publication of the University Record has been continued through the year, and arrangements have been made for its publication during the coming year. It has proved a most valuable means of communicating to our alumni and other friends, and especially to the teachers in the preparatory schools, what work we are doing and what help we desire from the schools. We much desire to have the circulation increased. Our friends will render us a valuable service if they will call the attention of others, interested in the real intellectual life of the University, to this quarterly journal which is published at a nominal price.

We learn from the Librarian's Report the following facts concerning the Libraries :

Number of volumes in all the libraries, Sept. 30, 1892-----	82,347
Number of unbound pamphlets in the libraries, Sept. 30, 1892	15,930
Number of maps in the libraries, Sept. 30, 1892-----	726
Increase of volumes from Oct. 1, 1891, to Sept. 30, 1892-----	4,642
Increase of unbound pamphlets from Oct. 1, 1891, to Sept. 30, 1892 -----	349
Increase of maps from Oct. 1, 1891, to Sept. 30, 1892-----	124
Recorded use of books in Reading Room for the above twelve months -----	135,807
Number of volumes drawn from the library by Professors for the same time-----	3,650
Total-----	139,457

The above recorded use may, in the opinion of the Librarian, be estimated at about two-thirds of the entire use of the library.

A good deal of work has been done in re-arranging and caring for the collections in our scientific museum. The construction of the new cases just completed is about the last provision we can make in our museum building for the display of specimens. If our collections are to multiply, the question of finding room for them will before long be urgent. How far it is wise for a college or univer-

sity to go on collecting beyond securing such specimens as are needed for purposes of instruction, is a subject which teachers of science are discussing with some earnestness. To care properly for specimens, especially for biological specimens, requires constant labor and expense. Only a few very large museums can be maintained in any one country, and only a few can be said to be needed. It is cheaper for the specialists to visit the few great museums than to multiply vast collections. But so many visitors from all parts of this State are interested in inspecting our museum, that it is perhaps wise for us to be somewhat liberal in our construction of the rules which should govern a university in determining the amount and variety of collections. Especially we may well seek to gather specimens, illustrative of the life, resources and history of Michigan.

In this connection attention may be called to the effort which we have been making, largely through the zeal and activity of Professor Kelsey, during the last year, to collect relics of the life of the aboriginal inhabitants of this region. Through the generosity of a few of our citizens, the De Pue collection of Indian relics found in this vicinity, and formerly owned by the late David De Pue, has been secured. Very many interesting specimens of the kind have already been carried away to enrich collections outside of our State. At no distant day the opportunity to make a characteristic collection here will be gone. A fund of moderate size placed at our disposal by some friend would now enable us to make a respectable collection in Michigan archæology. We shall be glad to receive donations of Indian relics for the museum from all parts of the State or from adjacent States.

Our Art Museum is about to receive the final installment of the gift of the late Randolph Rogers, consisting and meritorious work. The fact that we have no suitable of the casts of the renowned Doors of the Capitol at Washington. By many they are regarded as his most original room in which to exhibit them, reminds us afresh of our

need of a building for our Art collections. If we had such a structure the Library could make good use of the present Art Gallery and be freed for some time from pressure, for which we must soon find some relief.

We are making preparations for a University Exhibit at the Columbian Exposition. It is impossible to show in visible form the best part of the work of a university, but a vigorous committee of our Faculties is endeavoring to arrange a creditable exhibit.

During the year we have found ourselves constrained to consider the question whether the best interests of the University did not call for an increase in the salaries of our teaching force. The salaries have always been lower here than those of the more important Universities in the east. And there is no injustice in this, so long as the difference is not too great, since the cost of living here is less than it is in the east. Until lately we have experienced little embarrassment from our maintenance of salaries on a scale lower than that of several universities. But three important changes have taken place which materially affect us. *First*, the larger eastern universities have in the last few years been gradually raising salaries until now some of their teachers receive two or three times as much as any of ours. *Secondly*, some universities west of us are paying salaries much larger than ours. *Thirdly*, whereas formerly it was rather rare that a Professor was called from one institution to another, now the custom is very general. The consequence of these changes is that we are constantly in danger of losing some of our most valuable men. They are generally so attached to life here that they withstand pretty strong temptations to go elsewhere. But it is idle to suppose we can retain them, if they are invited to institutions of high standing at salaries much larger than those which are given by us. It needs no argument to show that our gravest misfortune would be the loss of the accomplished and experienced teachers, who maintain the reputation of the university. It is not

buildings or large numbers of students, which mainly give power and prestige to a university. It is the men who are giving instruction that make the fame and the strength of a university. If men of learning and character and power cannot be kept in the professors' chairs, the influence of this institution must wane. It is not sufficient that they be kept, but that they be kept on such terms that they have reasonable cause for contentment in their positions. If they are constrained to be constantly looking elsewhere for a chance for appointments, which shall afford them such a livelihood as is becoming, not to say necessary, to men of their occupation, the subtraction from their efficiency is of serious consequence. I think a moderate addition to the present salaries would be only just and would guard us for some time against the perils which now threaten us of losing some of our most valuable teachers. The truth of these considerations is so obvious that I am sure this Board will regard it as a duty and esteem it a pleasure to make such addition, provided the state of our treasury will permit them to do so. But I have made the above emphatic statements because the State should understand the necessity for such action.

We shall have to ask of the legislature at the coming session the usual appropriations for the aid of the University. I do not see how we can well avoid the necessity of asking some appropriations for building purposes.

The Waterman Gymnasium, which is in process of erection, presents a serious problem. When the late Mr. Waterman gave us twenty thousand dollars on condition that an equal sum was subscribed by other friends of the University, it was supposed by him that the whole amount would be sufficient for the erection of a suitable structure. But after a careful study of gymnasiums was made by our architect, it was found that for our great number of students a much larger building than could be erected for such a sum was indispensable. We find that to complete the main building which is now be-

gun, we need about twenty thousand dollars more than have been subscribed, while, if we build a wing for the women, we shall need yet twenty thousand dollars more. In view of the private subscription of over forty thousand dollars, the legislature may feel disposed to complete the building.

The Department of Medicine and Surgery needs another hospital ward. It also needs another lecture room and more room for laboratory work. The extension of the course renders it necessary to carry on more lectures simultaneously. During the past year the Dental amphitheatre has been used by medical classes, but not without inconvenience to the Dental Department, which needs the room for its lectures.

The rapid increase in the number of Engineering students will soon compel us to refuse some of them accommodations, unless we can enlarge the mechanical and physical laboratories. It is only with great difficulty that we can now give them room for their work. When the next class arrives, we shall be greatly embarrassed. If we had the means, it would be wise to enlarge both of the above-named laboratories at once.

It would be most advantageous to us to have an addition to the Library Building, which should provide for more storage room for books, and should also contain some room for "seminary" work for our advanced classes. It is most convenient to have these rooms in proximity to the Library. As has been already suggested, if a new Art Museum should be erected through private or public gift, the space in the present Art Gallery could be made available. But otherwise there is no way to secure the needed space except by enlarging the Library Building.

Perhaps even more pressing at this time is the need of a new building for the use of the Literary Department. The rapid increase of that Department and the necessity of appropriating several of the old recitation rooms for scientific laboratories have left us uncomfortably crowded.

Some of our rooms, with rather inadequate means of ventilation for a moderate use of them, are in so continuous use as to make proper ventilation impossible without exposing students to dangerous draughts. Indeed, the difficulty of providing a sufficient number of rooms at some hours of the day is insuperable.

The administration offices in the main building are too small for the business which has to be done in them. Larger accommodations are needed for the Secretary, the Treasurer, and the President, and for the Dean and the Registrar of the Literary Faculty.

Though our embarrassments in providing for the needs of the University are serious, it is gratifying to us, and, we believe to the State, to know that our embarrassments are caused by our prosperity and by the improvement in our work. For relief from them and for the means for the constant development of the University, we look confidently to the state, which has enabled the Regents and the Faculties to bring the Institution to its present prosperity and usefulness.

JAMES B. ANGELL.

APPENDIX A.

FINANCE REPORT.

To the Board of Regents:

The Finance Committee herewith submit the Treasurer's annual statement of receipts and expenditures for the fiscal year ending June 30, 1892, together with estimates of receipts and expenditures for the year ending June 30, 1893.

The books and accounts of the Steward and Treasurer for the year ending June 30, 1892, have been carefully examined, and all vouchers have been examined in detail. A few discrepancies and inaccuracies of minor importance have been discovered, but these do not affect the general accuracy of the Treasurer's report, or the condition of the University finances. Attention has been called to any inaccuracies that may have occurred.

In view of the unusual demands made on the Treasury of the University during the past year, your committee take pleasure in calling attention to the hopeful condition of the finances of the University, as shown by the annexed reports. If, however, any expenditures are required in addition to the estimated disbursements, relief must be sought from the Legislature.

W. J. COCKER,
CHARLES HEBARD.

ESTIMATED RECEIPTS.

Balance in Treasury July 1, 1892.....	\$ 13,949 04
From State Treasurer—Interest and Aid, due and unpaid.....	24,000 00
To be received for University Interest.....	38,500 00
“ “ “ “ 1-20 Mill Tax.....	56,500 00
“ “ “ “ Homœopathic College and Hospital.....	14,200 00
“ “ “ “ College of Dental Surgery.....	12,000 00
“ “ “ “ Current Expenses of University Hospital.....	8,000 00
“ “ “ “ Contingent Expenses.....	12,500 00
“ “ “ “ Books for Libraries.....	7,500 00
“ “ “ “ from Interest on Bank Deposits.....	2,100 00
“ “ “ “ Sales of Dental Supplies.....	4,500 00
“ “ “ “ “ at University Hospital.....	4,173 00
“ “ “ “ “ Homœopathic Hospital.....	700 00
“ “ “ “ Students' Fees, Medical Department.....	13,250 00

To be received from Students' Fees, Literary Department.....	39,895 00
“ “ “ “ “ Law “	29,225 00
“ “ “ “ “ Dental, “	7,825 00
“ “ “ “ “ Homœopathic “	3,135 00
“ “ “ “ “ Pharmacy “	3,645 00
“ “ “ “ Chemical Laboratory Supplies.....	11,633 00
“ “ “ “ Engineering “	1,028 00
“ “ “ “ Botanical “	312 00
“ “ “ “ Physiological “	162 00
“ “ “ “ Zoölogical “	207 00
“ “ “ “ Histological “	466 00
“ “ “ “ Pathological “	715 00
“ “ “ “ Hygienic “	795 00
“ “ “ “ General Chemistry	675 00
“ “ “ “ Practical Anatomy.....	2,360 00
“ “ “ “ Electrical Engineering.....	426 00
“ “ “ “ Electro therapeutics.....	376 00
“ “ “ “ Diplomas	7,000 00

\$321,252 04

ESTIMATED DISBURSEMENTS.

Salaries at Dental College.....	\$ 10,000 00
“ “ University Hospital	3,300 00
“ “ Homœopathic College.....	13,000 00
“ in all other Departments.....	185,000 00
	\$211,300 00
For Current Expenses of Homœopathic Hospital.....	1,200 00
“ “ “ “ University Hospital.....	9,000 00
“ Contingent Expenses.....	12,500 00
“ Repairs	5,000 00
“ Purchase of Books for Libraries.....	7,500 00
“ Fuel and Lights.....	15,000 00
“ Postage	1,500 00
“ Insurance.....	1,200 00
“ Calendar, Regents' Proceedings, and Miscellaneous Printing..	4,000 00
“ Current Expenses of General Library	500 00
“ “ “ “ Museum.....	600 00
“ “ “ “ Astronomical Observatory.....	600 00
“ “ “ “ Hygienic Laboratory	2,000 00
“ Supplies for Pathological Laboratory.....	600 00
“ “ “ Botanical “	500 00
“ “ “ Histological “	500 00
“ “ “ Physiological “	600 00
“ “ “ Engineering “	1,500 00
“ “ “ Zoölogical “	600 00
“ “ “ Laboratory of Materia Medica.....	800 00
“ “ “ Electro-Therapeutics.....	500 00
“ “ “ General Chemistry	800 00
“ “ “ Dental Operating Room.....	3,000 00
“ “ “ Anatomical Material.....	3,000 00
“ Use of Water.....	600 00

For Purchase of and filling Diplomas	1,200 00
“ Commencement Expenses	1,200 00
“ Supplies for Chemical Laboratory	8,000 00
“ Advertising	800 00
“ School Inspection	400 00
“ Grading of Hospital Grounds	2,000 00
“ Transportation of Roger's Gifts	1,300 00
Balance on hand	21,451 44
	<u>\$321,252 04</u>

TREASURER'S REPORT.

To the Finance Committee, Board of Regents, University of Michigan:

GENTLEMEN: Herewith I submit my annual report for the year ending June 30th, 1892.

Respectfully,

H. SOULE, TREASURER.

RECEIPTS.

Balance in Treasury, July 1st, 1891	\$ 31,711 26
From State Treasurer, Account of Current Expenses	\$130,517 63
From State Treasurer, Account of Special Appropriations	113,125 00
From Earnings of the University, Current Expenses, General Account	136,758 54
	<u>380,401 17</u>
	<u>\$412,112 43</u>

DISBURSEMENTS.

From General Fund, Current Expense Account	\$262,340 44
From Special Funds, Appropriations Account	135,822 95
Balance in Treasury, June 30th, 1892	13,949 04
	<u>\$412,112 43</u>

GENERAL FUND.

RECEIPTS TO THE GENERAL FUND.

From State Treasurer, Account 1-20 Mill Tax	\$ 73,215 63
“ “ “ “ University Interest	57,302 00
“ Sale of Material, University Hospital	4,173 44
“ “ “ “ Homœopathic Hospital	711 32
“ “ “ “ Dental Operating Rooms	4,654 10
“ “ “ “ Medical Schools	472 42
“ Miscellaneous Sources	1,561 18
“ Interest on Deposits	2,105 81
“ Students' Fees, Account Medical Department	13,250 00
“ “ “ “ Literary “	39,895 00
“ “ “ “ Law “	29,225 00
“ “ “ “ Dental “	7,325 00
“ “ “ “ Homœopathic “	3,135 00
“ “ “ “ Pharmacy “	3,645 00
“ “ “ “ Chemical Laboratory	11,633 65
“ “ “ “ Mechanical “	1,028 00
“ “ “ “ Botanical “	312 00
“ “ “ “ Physiological “	162 00
“ “ “ “ Zoölogical “	207 00
“ “ “ “ Histological “	466 00
“ “ “ “ Pathological “	715 00
“ “ “ “ Hygienic “	795 16

From Students' Fees, Account General Chemistry Dept.	575 33	
“ Key Deposits	300 00	
“ Practical Anatomy	2,360 00	
“ Electrical Engineering	426 00	
“ Electrotherapeutics	376 00	
“ Diplomas	7,170 00	
“ Photography	22 00	
“ University Record	30 00	\$267,249 04

DISBURSEMENTS FROM THE GENERAL FUND.

Balance overdrawn, July 1st, 1891	\$ 2,518 00	
General Pay Roll of Officers, Professors, and Employees ..	174,056 75	
Vouchers Paid, Account Students' Fees Refunded	5,430 37	
“ “ “ Fuel and Lights	9,604 61	
“ “ “ General Library	482 88	
“ “ “ Museum	630 18	
“ “ “ Advertising Medical Departm't,	168 98	
“ “ “ “ Law “	315 80	
“ “ “ “ Pharmacy “	212 08	
“ “ “ Miscellaneous Printing	1,773 43	
“ “ “ Civil Engineering	173 25	
“ “ “ Chemical Laboratory	7,823 61	
“ “ “ Histological “	341 55	
“ “ “ Botanical “	363 05	
“ “ “ Physical “	28 92	
“ “ “ Physiological “	357 05	
“ “ “ Mechanical “	1,415 36	
“ “ “ Zoölogical “	617 97	
“ “ “ Pathological “	454 51	
“ “ “ Hygienic “	750 56	
“ “ “ Anatomical “	2,681 72	
“ “ “ General Chemistry Laboratory,	809 14	
“ “ “ Astronomical Observatory	307 04	
“ “ “ Postage	1,167 74	
“ “ “ Dental Supplies	3,059 35	
“ “ “ Calendar	1,750 29	
“ “ “ Contingent Expenses	33,505 89	
“ “ “ Electrotherapeutics	514 39	
“ “ “ Materia Medica	834 77	
“ “ “ Construction	12,265 98	
“ “ “ School Inspection	393 22	
“ “ “ Insurance	50 00	\$264,858 44
Balance in Treasury, June 30th, 1892		2,390 60
		<u>\$267,249 04</u>

SPECIAL FUND ACCOUNTS.

HOMOEOPATHIC MEDICAL COLLEGE.

Receipts.

Balance in Treasury, July 1st, 1891	\$ 4,266 60	
From State Treasurer	6,000 00	\$ 10,266 60

Disbursements.

Paid Salaries of Professors and Employees	\$ 2,700 00	
Paid Vouchers for Expenses	2,550 88	
Balance in Treasury, June 30th, 1892	5,015 72	\$ 10,266 60

HOMOEOPATHIC MEDICAL COLLEGE AND HOSPITAL.

Receipts.

Balance in Treasury, July 1st, 1891.....	292 47	
From State Treasurer.....	10,000 00	10,292 47

Disbursements.

Paid Salaries of Professors and Employees.....	9,130 59	
Paid Vouchers for Expenses.....	992 97	
Balance in Treasury, June 30th, 1892.....	168 91	10,292 47

GENERAL LIBRARY.

Receipts.

Balance in Treasury, July 1st, 1891.....	277 57	
From State Treasurer.....	7,500 00	
Balance overdrawn, June 30th, 1892.....	283 49	8,061 06

Disbursements.

Paid Vouchers for Expenses.....		8,061 06
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UNIVERSITY HOSPITAL.

Receipts.

From State Treasurer.....	10,000 00	
Balance overdrawn, June 30th, 1892.....	163 38	10,163 38

Disbursements.

Balance overdrawn July 1st, 1891.....	1,035 89	
Paid Vouchers for Expenses.....	5,837 33	
Paid Salaries Resident Physicians and Employees.....	3,290 16	10,163 38

CONTINGENT.

Receipts.

Balance in Treasury, July 1st, 1891.....	1,464 93	
From State Treasurer.....	12,500 00	13,964 93

Disbursements.

Paid Vouchers for Expenses.....	10,904 06	
Balance in Treasury, June 30th, 1892.....	3,060 87	13,964 93

REPAIRS.

Receipts.

Balance in Treasury, July 1st, 1891.....	577 97	
From State Treasurer.....	5,000 00	5,577 97

Disbursements.

Paid Vouchers for Expenses.....	4,395 41	
Balance in Treasury, June 30th, 1892.....	1,182 56	5,577 97

PHYSIOLOGICAL LABORATORY.

Receipts.

Balance in Treasury, July 1st, 1891.....	15	15
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Disbursements.

Paid Vouchers for Expenses.....	15	15
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ENGINEERING LABORATORY.

Receipts.

Balance in Treasury, July 1st, 1891.....	319 25	319 25
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Disbursements.

Paid Vouchers for Expenses.....	319 25	319 25
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PHYSICAL LABORATORY.

Receipts.

Balance in Treasury, July 1st, 1891.....	1,505 76	
From State Treasurer.....	1,500 00	
Balance overdrawn, June 30th, 1892.....	183 12	3,188 88

Disbursements.

Paid Vouchers for Expenses.....	3,188 88	3,188 88
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DENTAL SURGERY.

Receipts.

Balance in Treasury, July 1st, 1891.....	1,292 56	
From State Treasurer.....	12,000 00	13,292 56

Disbursements.

Paid Salaries of Professors and Employees.....	9,262 50	
Paid Vouchers for Expenses.....	1,151 94	
Balance in Treasury, June 30th, 1892.....	2,878 12	13,292 56

SCIENTIFIC LABORATORIES.

Receipts.

Balance in Treasury, July 1st, 1891.....	22 97	22 97
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Disbursements.

Paid Vouchers for Expenses.....	22 97	22 97
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REMOVAL OF ROGERS' GIFTS.

Receipts.

Balance in Treasury, July 1st, 1891.....	158 19	158 19
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Disbursements.

Paid Vouchers for Expenses.....	86 12	
Balance in Treasury, June 30th, 1892.....	72 07	158 19

COMPLETION OF ENGINEERING LABORATORY.

Receipts.

Balance in Treasury, July 1st, 1891.....	\$ 133 63	\$ 133 63
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Disbursements.

Paid Vouchers for Expenses.....	133 63	133 63
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EQUIPMENT OF ENGINEERING LABORATORY.

Receipts.

Balance in Treasury, July 1st, 1891.....	931 01	
From State Treasurer.....	4,000 00	4,931 01

Disbursements.

Paid Vouchers for Expenses.....	3,249 98	
Balance in Treasury, June 30th, 1892.....	1,681 03	4,931 01

CIVIL ENGINEERING.

Receipts.

Balance in Treasury, July 1st, 1891.....	681 65	681 65
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Disbursements.

Balance in Treasury June 30th, 1892.....	681 65	681 65
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ENLARGEMENT OF DENTAL COLLEGE.

Receipts.

Balance in Treasury July 1st, 1891.....	2,910 00	2,910 00
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Disbursements.

Paid Vouchers for Expenses.....	2,910 00	2,910 00
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